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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,622	06/25/2003	Yutaka Oka	FSF-031381	2391

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TAIYO CORPORATION
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ALEXANDRIA, VA 22314

EXAMINER

CHEA, THORL

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/602,622

Applicant(s)

OKA ET AL.

Examiner

Thorl Chea

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 13-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 13-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamamoto et al (US 2003/0224307). See Yamamoto et al, on page 96, claims 1, 3, 4-7, especially claim 1, formula 1, claims 3, formula 2 and silver halide having average size and iodide content in claims 4-6.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g.,

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In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-9 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of copending Application No. 10/412,214 in view of Kong et al (US Patent No. 6,171,767). The difference between the invention claimed in the instant application and the invention as claimed in the copending application is the compound of formula T1 claimed in claimed 1 of the '214 application, but this compound have been known in Kong in column 20, lines 35 as antifoggant for photothermographic material. Accordingly, it would have been obvious to the worker of ordinary skill in the art to use the antifoggant known in Kong et al to improve fogging property of the invention claimed in this instant application, and thereby provide an invention as claimed.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Okada et al (US Patent No. 5,952,167), Ikari (US Patent No. 6,482,583), Siga et al (US Patent No. 4,332,889) and Toya et al (US Patent No. 5,998,126).

Okada et al disclose a photothermographic substantially as claimed. See columns 22-30, claims 1-18 wherein the material contains a reducible silver source, a photocatalyst, a reducing agent, a binder and a polyhalogen compound of formula (I); column 14, lines 23-39 wherein the photocatalyst include silver iodide and silver bromiodide. Siga et al in column 6, lines 60-68 discloses a silver iodobromide having molar ratio of silver iodide to silver bromide within the range of 30/70 to 98/2 to provide a heat developable material to have improved spectral sensitivity as well as storage stability. Toya et al in column 16, lines 19-64 discloses silver halide grains having small size for the purpose of minimizing white turbidity after image formation. The grain size is within the range of 10 nm to 80 nm and having silver iodide content from 0.1 to 40 mole %. Ikari discloses the use of claimed compound of formula (1) to provide a photothermographic material with low fog, good photographic performance, even stored at high temperature in high humidity before image formation. See Akari, abstract and column 2, lines 36-41. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the mercapto compound taught in Ikari in the material of Ito for same reason as disclosed above, and thereby provide a material as claimed.

Okada et al discloses the use of silver iodide or silver bromide, but fails to disclose the compound of formula (1) and the silver halide content having silver iodide content of 10 % to 100 mole % claimed in the present claimed invention, the compound of formula (1) is disclosed in Akari as antifogant and the iodide or silver halide having iodide claimed in the present

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invention has been known as photocatalyst such as taught in Siga et al and Toya et al. Therefore, it would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the antifoggant taught in Ikari and the silver halide having iodide content taught in Toya et al or Siga et al to provide the material of Okada et al with low fog and storage stability, and thereby provide the invention as claimed.

3. Claims 10, 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito (US Patent No. 6,376,167). Ito discloses a photothermographic substantially as claimed. See column 19 lines 30-67 which discloses silver halide includes silver iodide having grain size of 10 nm to 80 nm. See column 20 wherein the silver halide may contains ion of metals belong to groups 6-11 such as W, Fe, Co, Ni, Cu, Rh, Pd, Re, Os, Ir, Pt and Au; see also the noble material as chemical sensitizer in column 21, lines 45-67, to column 22, lines 1-11. in column 26, lines 9-14, it is disclose that the metal ions or complex ions may be added several times by dividing the added amount. Siga et al in column 6, lines 60-68 discloses a silver iodobromide having molar ratio of silver iodide to silver bromide within the range of 30/70 to 98/2 to provide a heat developable material to have improved spectral sensitivity as well as storage stability. Toya et al in column 16, lines 19-64 discloses silver halide grains having small size for the purpose of minimizing white turbidity after image formation. The grain size is within the range of 10 nm to 80 nm and having silver iodide content from 0.1 to 40 mole %. The silver halide core/shell grains is known in column 16, lines 60-64. See also the chemical sensitizer such as gold, tellurium, selenium and sulfur in column 17, lines 20-53.

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Ito may not disclose the pair of metal claimed in the present claimed invention, but discloses in column 20, lines 59-65 that one type of these metal ions may be employed and the same type of the metals or the different type of metals may be employed in combination of two or more types. It would have been obvious to the worker of ordinary skill in the art at the time the invention was known that iodide or silver bromoiodide is well known as a photocatalyst for silver source taught by Siga or Toya et al with the metal ions taught in Ito including the pair thereof with an expectation of providing a photothermographic material with an increased sensitivity and storage stability, and thereby provide an invention as claimed.

Response to Arguments

4. Applicant's arguments filed September 14, 2005 have been fully considered but they are not persuasive because of the rejection set forth above. The applicants' argument is based on the comparative results presented in Declaration under 37 CFR 1.132 submitted on September 14, 2005 and January 21, 2005. It is still the Examiner's position that the Declaration is insufficient to determine the unexpected results of the claimed invention. The invention of formula (H) and the formula (I) has been known as antifoggant for photothermographic material, and the amount thereof must be critical in determining the comparative results. The Declaration fails to provide of the amount of the mercapto compound and the amount of polyhalogen compound. The sum of the amount of the mercapto compound and the polyhalogen compound in the inventive sample should be equal to the amount of either the mercapto compound or the polyhalogen compound in the comparative sample due to the similarity of property. In the absence of providing the equivalent of the amount of mercapto compound and the polyhalogenate compound, it is improper to conclude the superior results of the inventive

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sample. The Declaration also states that the Declaration submitted the Declaration under 37 CFR 1.132 submitted on January 19, 2005 that the amounts of the first metal and the second metal used in the experiment B are 5×10^{-4} mol/molAg and 3×10^{-3} mol/molAg respectively. It is still the Examiner's position that the data provided in the Declaration is insufficient to determine the unexpected results of the claimed invention. It is still unclear whether the amount of metal used singly is equal to the combination of the pair. In the absence of stating the amount thereof, it improper to conclude whether the material containing a pair of metal is superior than that containing a single metal. Also, the invention claims in claim 10 contains silver halide having iodide content from 10 mole % to 100 mole %. However, the Declaration is silence with respect to the silver iodide content in the silver halide. Therefore, the Declaration is not commensurate with the scope of the claimed invention.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tchea *th*
November 11, 2005

Thori Chea
Thori Chea
Primary Examiner
Art Unit 1752